



6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R05-OAR-2015-0700; FRL-10012-09-Region 5]

**Air Plan Approval; Indiana; Attainment Plan for the Southwest
Indiana Sulfur Dioxide Nonattainment Area**

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is approving as a State Implementation Plan (SIP) revision to the Southwest Indiana-related elements of an Indiana submission to EPA dated October 2, 2015, as supplemented on November 15, 2017 and September 18, 2019. EPA concludes that Indiana has appropriately demonstrated that the plan provides for attainment of the 2010 sulfur dioxide (SO₂) primary National Ambient Air Quality Standard (NAAQS) in the Southwest Indiana area by the applicable attainment date and that the plan meets the other applicable requirements under the Clean Air Act.

DATES: This final rule is effective on **[insert date 30 days after date of publication in the Federal Register]**.

ADDRESSES: EPA has established a docket for this action under Docket ID No. EPA-R05-OAR-2015-0700. All documents in the docket are listed on the www.regulations.gov web site. Although listed in the index, some information is not publicly available,

i.e., Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available through www.regulations.gov, or please contact the person identified in the "**For Further Information Contact**" section for additional availability information.

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SUPPLEMENTARY INFORMATION:

I. Summary of EPA's Notices of Proposed Rulemaking

Following the promulgation in 2010 of a 1-hour primary SO₂ NAAQS, on August 5, 2013, at 78 FR 47191, EPA designated an area in Southwest Indiana that included a township in each of Daviess and Pike Counties, Indiana as nonattainment for this NAAQS, in conjunction with designating three other areas in Indiana and multiple areas in other states as nonattainment. On October 2, 2015, the Indiana Department of Environmental Management ("Indiana") submitted plans addressing all four of its SO₂ nonattainment areas. EPA has taken separate action on Indiana's

plans for its other nonattainment areas: EPA published final action on plans for the Indianapolis and Terre Haute areas on March 22, 2019, at 84 FR 10692, and published final action on the plan for the Morgan County area on September 23, 2019, at 84 FR 49659.

In addition to its October 2, 2015 submittal, Indiana made a supplemental submittal on November 15, 2017, providing clarifications on its inventory procedures and other elements of its four nonattainment plans. EPA published a proposed rule proposing to approve three of these plans (for the Southwest Indiana, Indianapolis, and Terre Haute areas) on August 15, 2018, at 83 FR 40487.

In response to that proposed rule, EPA received comments objecting to, among other things, the manner in which Indiana calculated an adjustment to the level of the 30-day average limit for Indianapolis Power and Light's Petersburg power plant (IP&L-Petersburg or "the facility"). These comments prompted Indiana to recalculate the adjustment factor used to determine the appropriate limits for this facility, resulting in the adoption of revised limits and submittal of these revised limits on September 18, 2019. Indiana also provided an email on November 19, 2019 clarifying the interrelationship between the commissioner's order containing the revised limits and the provisions in Indiana regulations, both of which Indiana

requested be incorporated into the Indiana SIP.

On February 24, 2020, at 85 FR 10350, EPA published a supplementary proposed rule addressing Indiana's revised plan. This action evaluated Indiana's revised 30-day average limits and the recalculated adjustment factor used to determine those limits. The original submittal relied on modeling to determine 1-hour emission limits that would provide for attainment (expressed in pounds per million British Thermal Units (MMBTU), known as critical emission rates), and imposed 30-day average limits determined by multiplying these 1-hour rates by 80 percent. Indiana's reevaluation concluded that a more appropriate adjustment factor was 68 percent. Indiana made no change to its modeling; its revised 30-day average limits reflect only this change in adjustment factor. Therefore, the supplemental proposed rule solicited comments only on this change to Indiana's plan.

II. Comments

In response to its proposed rule of August 15, 2018, EPA received relevant comments from Sierra Club addressing the reliance on 30-day average emission limits for Indianapolis Power and Light's Petersburg power plant (IP&L-Petersburg). EPA also received two anonymous comments that address subjects outside the scope of our proposed action, do not explain (or provide a legal basis for) how the proposed action should differ

in any way, and make no specific mention of the substantive aspects of the proposed action. Consequently, these comments are not germane to this rulemaking and require no further response. EPA received no comments on its supplemental proposed rule of February 24, 2020.

As noted above, Sierra Club had numerous comments on the calculation of the adjustment factor used to determine the original 30-day average limits, which resulted in Indiana recalculating the adjustment factor and adopting revised limits, and which EPA then discussed in a supplemental notice of proposed rulemaking (NPRM). Consequently, some of Sierra Club's comments on the original Indiana submittal are either moot or have been subject to an additional solicitation of comments in light of the additional relevant available information. EPA received no comments on this supplemental NPRM. The following responses to Sierra Club's comments will identify the extent to which comments on specific aspects of Indiana's calculations of 30-day average limits for IP&L-Petersburg are still germane.

Comment: Sierra Club notes the health effects from exposure to SO₂ "in even very short time periods—such as five minutes." Sierra Club expresses concern that IP&L-Petersburg's 30-day average limit will allow spikes in emissions that cause spikes in concentrations sufficient to yield violations of the 1-hour air quality standard.

Response: EPA believes that Indiana's establishment of a 30-day average limit at a lower level than the 1-hour limit indicated to be necessary by modeling will avoid some of the exceedances that would be expected with emissions constantly at the modeled level, such that the net effect of Indiana's lower, longer term average limit is to have similar air quality as would be expected with a 1-hour limit. Further discussion of this topic is provided below in response to more detailed comments. Sierra Club properly focuses on whether Indiana's plan provides for attainment of the 1-hour standard, and not on the shorter term (e.g., five minutes) exposures that the standard is designed in part to address. Nevertheless, EPA notes that suitably adjusted long term limits can be expected to provide adequate mitigation of even the shorter (sub-hour) exposures to SO₂, for the same reasons that such limits suitably address the 1-hour standard.

Comment: Sierra Club observes that EPA's April 2014 guidance¹ acknowledges that EPA historically has required averaging times consistent with the averaging time of the standard, and specifically stated that EPA would not approve plans relying solely on 30-day average limits. Sierra Club

¹ See "Guidance for 1-Hour SO₂ Nonattainment Area SIP Submissions," available at https://www.epa.gov/sites/production/files/2016-06/documents/20140423guidance_nonattainment_sip.pdf.

cites other EPA statements that short term standards must be addressed with short term average limits. Sierra Club equates a 30-day average limit to a 720-hour average limit, and states that a 720-hour limit would not sufficiently limit hourly emissions to protect against violations of the air quality standard "unless it was shown through air dispersion modeling that the maximum uncontrolled hourly emissions from a source" would not result in violation of the standard. Sierra Club notes that Table 8-1 of EPA's modeling guideline "requires modeling for short term [standards] be based on the allowable emissions over the averaging time of the [standard]." Sierra Club asserts that "the maximum allowable hourly emission rate is difficult to predict from a 30-day average limit."

Response: The EPA statements that Sierra Club cites predate the 2014 guidance, and thus reflect a time when EPA had not yet conducted the analyses and completed evaluation of methods for formulating longer term average limits that would provide for attainment of a 1-hour air quality standard. Now that EPA has completed this work, the 2014 guidance, for purposes of implementing the 2010 SO₂ NAAQS, supersedes prior guidance on the topic.

Sierra Club cites the requirement in EPA's modeling

guideline² to model the allowable emission rate based on a short term limitation, but does not address the guidance in appendix A of EPA's 2014 guidance (entitled "Modeling Guidance for Nonattainment Areas"), which states that notwithstanding the orientation of Table 8-1 toward short term emission limits, "current guidance . . . provides that after the state determines the 1-hour limit that would be necessary to provide for attainment, any longer term limit should be established at a level that is sufficiently lower to provide comparable stringency. Thus, in cases where a state wishes to apply a longer term average limit, the attainment analysis would be based not on the level of the longer term limit but rather on the level of the corresponding 1-hour emission limit." See page A-79 of EPA's 2014 guidance. This recommended approach avoids the unnecessary burden of defining an ensemble of variable emissions that may be considered to reflect allowable emissions and the burden of conducting a modeling analysis with such an inventory. Instead, EPA recommends relying on standard modeling approaches, as if a short-term limit were to be established. For reasons described in the guidance and described in more detail in the August 15, 2018 NPRM, EPA believes that a longer

² Title 40 Code of Federal Regulations part 51 appendix W, entitled "Guideline on Air Quality Models."

term limit that is determined to have comparable stringency to the corresponding 1-hour limit (generally, by applying an adjustment factor computed according to recommended methods) will yield comparable air quality (*i.e.* comparable assurance that the standard will not be violated) as the 1-hour limit. For that reason, and for ease of implementation, EPA does not believe that an assessment of the range of emissions expected upon compliance with a long-term limit or an assessment of the associated air quality is warranted or necessary.

Comment: Sierra Club asserts that "ambient air quality conditions can be rendered unsafe by as few as four hours of elevated emissions over the course of a year."

Response: Indiana, by imposing a 30-day average limit on IP&L-Petersburg's emissions determined in accordance with EPA's guidance, allows a small number of occasions to have emissions above the critical emissions value but requires most occasions to have emissions well below this level, indeed requiring emissions on average to be 32 percent below the critical emissions value. In modeling constant emissions, as in routine modeling to assess whether a particular set of 1-hour emissions limits would provide for attainment, one makes no assessment of the impact of emissions sometimes being higher and other times being lower than the constant emission level. Sierra Club addresses only the occasions with higher emissions, noting their

potential to result in exceedances beyond those expected with emissions always at the critical emissions value, thereby yielding a violation of the standard. However, Sierra Club does not address the impact of emissions generally being well below the critical emissions value. Thus, Sierra Club does not consider the likelihood that the more numerous occasions of emissions well below the critical emissions value, mandated by the downward adjusted longer term average emissions limit, would result in avoiding some of the exceedances that would be expected with emissions always at the critical emissions value. EPA does not dispute Sierra Club's contention that occasions with emissions above the critical emissions value create added risk of exceedances of the air quality standard (if these occasions occur when the meteorology is conducive toward high concentrations at locations where violations might occur), but Sierra Club does not dispute or otherwise address EPA's contention that other occasions with emissions well below the critical emissions value, which the downward adjusted 30-day average limit requires to occur often, can be expected to yield a compensating reduction in the frequency of concentrations above the level of the standard. As explained in the NPRM, EPA believes that the net effect of a properly downward adjusted longer-term limit is comparable to the effect of a corresponding 1-hour emission limit and provides equally for attainment.

Comment: Sierra Club asserts that Indiana's modeling analysis, which does not directly assess emissions allowed by a long-term average emission limit, is contrary to the regulatory requirements in 40 CFR 51.112(a). Separately, Sierra Club objects to EPA's assertion that the plan need not provide "absolute certainty that attainment will in fact occur" and that the plan need only provide "an adequate level of confidence of prospective [attainment of the standard]." Sierra Club quotes from Clean Air Act section 172(c)(1), that attainment plans "shall provide for attainment of the national primary ambient air quality standards." [Emphasis in comments.] Sierra Club concludes that "EPA has much more responsibility than just ensuring a plan provides 'an adequate level of confidence'" of attainment.

Response: The requirement in 40 CFR 51.112(a) is that "[e]ach plan must demonstrate that the measures, rules, and regulations contained in it are adequate to provide for the timely attainment and maintenance of the national standard that it implements." In this case, Indiana has conducted modeling to identify 1-hour emission limits that would provide for attainment. Indiana then provided an analysis of the degree of adjustment needed for 30-day average limits to be comparably stringent to those 1-hour limits, and Indiana adopted these 30-day average limits. Because Indiana has conducted a suitable

analysis of appropriate 1-hour limits and suitably analyzed and adopted the 30-day average limits that are comparably stringent, EPA believes that Indiana has suitably demonstrated that the 30-day average limits in its plan are adequate to provide for timely attainment of the SO₂ standard, thereby satisfying the requirement of 40 CFR 51.112(a).

Sierra Club has accurately quoted the requirement in the Clean Air Act for attainment plans to provide for attainment. Evidently Sierra Club believes that this requirement would have been met with 1-hour limits, despite the possibility that future violations might occur if, for example, future meteorology differs in unforeseeable ways from the historic meteorology analyzed in planning. EPA believes that the 30-day average limits adopted by Indiana provide comparable assurance of attainment as would have been provided by the 1-hour limits that Indiana would otherwise have relied on, and thus equally as well satisfy the requirement that, in all reasonably foreseeable circumstances, the plan provides for attainment.

Comment: Sierra Club believes that the modeling analysis in appendix B of EPA's 2014 guidance does not suffice to demonstrate that 30-day average limits at IP&L-Petersburg or elsewhere can protect against violations of the SO₂ standard as well as 1-hour limits. Sierra Club believes that the appendix B analysis, by assuming a fixed distribution among stacks at the

facility and assuming no changes in stack parameters pursuant to the addition of emission controls, does not properly address the multi-stack situation at IP&L-Petersburg. Sierra Club objects further that the analysis in appendix B, by using an inventory of how the source would actually emit under a 30-day average limit, is not comparable to an analysis using the maximum permissible emissions under a 1-hour emission limit.

Response: The differences between the plant modeled for appendix B (Canadys) and IP&L-Petersburg are not persuasive reasons to believe that the results found for Canadys would not also apply to IP&L-Petersburg. There is no question that modeling to identify suitable 1-hour emission limits must be done on a source-specific basis, considering the site-specific configurations of stacks, stack parameters (reflecting any influence of controls on those stack parameters), and other source-specific factors such as meteorology, terrain, and dimensions of nearby buildings. However, appendix B reflects a premise that a source-specific critical emission value (*i.e.*, a candidate value for a 1-hour emission limit) has been identified. Appendix B addresses instead whether a 30-day average limit that reflects an adjustment in accordance with appendix C of EPA's guidance can be expected to result in attainment as well as imposition of a 1-hour limit at the critical emission value. The two scenarios addressed in

appendix B (with and without a scrubber) reflect adjustment factors of 68 percent and 69 percent, respectively. Thus, the issue being addressed by appendix B is whether a 30-day average limit reflecting such adjustments (determined based on a source-specific measure of variability) can be expected to ensure attainment as well as the corresponding 1-hour limit. EPA believes that this comparison between air quality with an adjusted 30-day average limit and air quality with the corresponding 1-hour limit applies to a broad range of circumstances. In particular, EPA believes that longer term limits established in accordance with EPA's guidance can provide for comparable air quality as the analogous 1-hour limits for a broad range of plants with various numbers of stacks, with various stack parameters, and with a broad range in the absolute magnitude of the 1-hour limits that are necessary to assure attainment.

Sierra Club is correct that the modeling described in appendix B for emissions in compliance with 30-day average limits is not directly comparable to the modeling that was done in establishing a suitable 1-hour limit. As Sierra Club notes, modeling for the 30-day average limit scenarios reflected the expected distribution of emissions in compliance with such a limit, inherently reflecting a margin of compliance that sources routinely have at most times, whereas the modeling for the 1-

hour limit scenarios reflected no such margin of compliance (*i.e.* these runs reflected emissions always at the 1-hour limit).

To address this comment, EPA performed additional analyses designed to identify emission profiles with average emissions equal to the presumptive 30-day average limit and to estimate the air quality that would result. These analyses are described in detail in a document entitled "Supplemental Assessment of the Air Quality Consequences of Applying Adjusted Long Term Average Emission Limits," which is included in the docket for this action.

The emission profiles used in this supplemental assessment were generally based on the actual emissions variations found in the 30-day periods having 99th percentile level average emissions. Profiles were developed for two plants with limits established in recent attainment plans for 2010 SO₂ nonattainment areas: IP&L-Petersburg (Unit 3) and Cardinal (Unit 1), a comparably large power plant in Jefferson County, Ohio. In each case, the analyses used data for a suitable period (3 years for IP&L-Petersburg and 5 years for Cardinal) during which the sources were complying with the attainment-level emission limit adopted by the state. Calculations were performed in accordance with appendix C of the 2014 guidance to determine the 99th percentile 30-day average emission rates and to determine

appropriate adjustment factors to be applied in determining 30-day average emission limits. These calculations were performed separately on a pound per hour basis and on a pound per MMBTU basis, supporting identification of two actual emission profiles for each plant, one reflecting emission variations in the 30-day period with approximately the 99th percentile pound per hour value and one reflecting emission variations in the 30-day period with approximately the 99th percentile pound per MMBTU value. Since the analysis used the modeling information for a separate plant (Canadys), the analyses used the critical emission value identified in that modeling. Allowable emissions (as a 30-day average) were calculated by multiplying this critical emission value by the applicable adjustment factor. Allowable emission profiles were then developed by scaling the actual emission profiles to the allowable level, *i.e.* multiplying the emissions for each hour times the ratio of the allowable emissions against the average emissions in the actual profile, as well as by substituting the allowable emission value for any time the plant was not operating in the actual profile period. These allowable emission profiles were applied repeatedly, in the first 30 days and every successive 30 days, with the result that every 30-day period in the 5-year analysis had average emissions equal to the allowable emissions level.

One of these profiles, namely for the 99th percentile pound

per MMBTU profile at IP&L-Petersburg, included a brief period with exceptionally high emissions, reflecting minimal if any flue gas desulfurization. Based on the uniqueness of these emissions during this timeframe, EPA does not believe that such a profile, recurring every 30 days, is a realistic representation of emission variations that routinely occur. The supplemental assessment document identified above provides further rationale for treating this as an unrepresentative profile, including evidence that such exceptional emissions are much more rare in practice, engineering reasons that such operation is prone to be damaging to the plant, and policy reasons that recurring occasions of exceptionally high emissions would be contrary to guidance to minimize the frequency and magnitude of occasions with emissions above the critical emissions value. Therefore, for this assessment, EPA replaced that profile with a profile based on emissions for the 30-day period with approximately the 98th percentile 30-day average pound per MMBTU value.

The results of this assessment are shown in Table 1. For each of the four profiles, the resulting air quality is somewhat below the air quality standard. Since these profiles reflect allowable emissions at all times, these results may be compared to the results of modeling allowable emissions under the corresponding 1-hour limit (*i.e.* modeling emissions constantly

at the critical emission value). Thus, this assessment supports a conclusion similar to the conclusion from appendix B, that establishment of a long term average emissions limit estimated to have comparable stringency to the corresponding 1-hour emission limit (calculated in accordance with the guidance in A C) can be expected to result in comparable air quality, and that such a limit provides comparable assurance of attainment.

Table 1. Design values estimated for each emission profile

Profile	Design Value ($\mu\text{g}/\text{m}^3$ (ppb))
Cardinal #/hour	181.2 (69.2)
Cardinal #/MMBTU	190.6 (72.8)
Petersburg #/hour	156.3 (59.7)
Petersburg 98 th %-ile #/MMBTU	190.5 (72.7)

Comment: Sierra Club asserts that “[n]either Indiana nor EPA evaluated the reasonably available control measures that could be utilized” at IP&L-Petersburg. Sierra Club highlights a consultant’s evaluation of such measures at this plant, as reported to the Indiana Utility Regulatory Commission. Sierra Club identifies several of the measures identified in this consultant’s evaluation, and states that “EPA cannot justify allowing a 30-day average limit . . . without considering all reasonably available control measures.”

Response: EPA guidance for implementing the SO₂ NAAQS advises that a plan that provides for attainment may be considered to have implemented all reasonably available control

measures. EPA believes that the 30-day average limits in Indiana's plan provide for attainment as well as would have been provided by 1-hour limits. Therefore, EPA believes that use of these 30-day average limits does not create a need for requirements for specific control measures (beyond the requirements inherent in the emission limit) that would not apply with the use of 1-hour limits. While the measures evaluated in the consultant's report may be useful approaches for the company to comply with Indiana's emission limits, EPA does not believe that approval of Indiana's plan should be contingent on Indiana adopting requirements for any of these specific measures.

Comment: Sierra Club objects that Indiana "did not conduct a unit-specific analysis in determining emissions variability." Sierra Club believes that Indiana is not justified in evaluating emissions variability only for the FGD stack³ for Unit 2, rather than examining variability of emissions for all four units at IP&L-Petersburg and including emissions from the bypass stacks (as applicable at Units 1 and 2). Sierra Club notes, in particular, that neither the 30-day average limits nor any other requirement will ensure that emissions from the bypass stacks

³ The "FGD stack" refers to the stack that vents emissions from the unit's control device, and thus represents controlled emissions. The bypass stack vents the emissions from the unit when the control device is not controlling emissions properly.

will not occur. Sierra Club notes that the units differ significantly, as they use scrubbers of different vintages and these scrubbers have been upgraded recently, so that Indiana may not assume that the variability of the FGD stack emissions at Unit 2 in the period from 2006 to 2010 is representative of either the variability of emissions of the other three units at that time or of the variability of emissions that can be expected for any of the four units once the units meet the proposed SIP limits. Sierra Club thus implies that the data Indiana used are not appropriate for determining the degree of adjustment warranted for all four units for an attainment plan for this area.

Response: In response to this comment, Indiana provided further explanation of its reliance on data from the Unit 2 FGD stack, namely that these data, by exclusively reflecting controlled emissions and reflecting more stable control equipment operation than Unit 1, provide the best data set for representing the distribution of emissions for all four units once Indiana's limits take effect. An extensive discussion of Indiana's rationale is provided in the February 24, 2020 supplemental NPRM, on which Sierra Club did not comment. Furthermore, additional analyses of variability at all four units at IP&L-Petersburg that were described in the supplemental NPRM provide additional support for EPA's belief that the 2006

to 2010 data for the Unit 2 FGD stack provide an appropriate data base for anticipating the variability that has in fact occurred in the time after Indiana's limits took effect. In absence of comments on this additional explanation, EPA maintains that Indiana's adjustment factor, based on 2006 to 2010 data for the FGD stack at Unit 2, is appropriate.

Comment: Sierra Club notes that EPA's guidance recommends that variability analyses be based on "'an adequately robust data' with at least '3 to 5 years of stable data (without changes that significantly altered emissions variability)'." Sierra Club believes that the data set for IP&L-Petersburg's Unit 2 FGD stack does not meet these criteria. Sierra Club notes significant variability from year to year in the maximum 30-day average emissions (in pounds per hour) and emission rate (in pounds per MMBTU), which was permissible given the absence of a constraining emission limit. Sierra Club further notes that the emissions from the Unit 2 FGD stack were below Indiana's proposed 30-day average proposed SIP limit for two of the five years included in Indiana's analysis, yet even in those years those emissions (not including bypass stack emissions) exceeded the critical mass emissions value in 82 and 99 hours (in 2007 and 2008, respectively).

Response: The February 24, 2020 supplemental NPRM addresses most of these comments. In particular, the

supplemental action provided additional rationale for the use of historic data from the Unit 2 FGD stack for assessing the expected variability of emissions at all four units at IP&L-Petersburg, and the supplemental action described EPA's analysis of more recent data that help confirm Indiana's forecast of variability and that indicate that the three units that are complying with the revised limits are emitting above the critical emissions value less than one percent of the time. Because EPA received no comments on this supplemental action, EPA considers the supplemental information to address these comments on the initial NPRM.

The supplemental NPRM did not address the portion of this comment that argued that year-to-year variability in emissions, expressed in terms of year-to-year variations in the maximum 30-day average pound per hour and pound per MMBTU, is too great to consider the 2006 to 2010 period to be a period of stable operation with respect to emissions from the Unit 2 FGD stack. That portion of the comment is addressed here.

The purpose of the relevant portion of EPA's guidance is to determine variability based on a data set that best reflects the degree of variability that can be expected once the facility complies with the limits in the plan. A data set with significant changes in control levels (e.g. two years of uncontrolled emissions and two years of well controlled

emissions) would either (at the 99th percentile level) be dominated by the two years of uncontrolled emissions data or give a distorted picture of variability, thus giving results that are either insufficiently robust or misleading.

However, Sierra Club has made no argument that the control regime for the Unit 2 emissions that are vented through the FGD stack changed during the 2006 to 2010 period. Instead, Sierra Club is effectively arguing that routine operation of the control equipment during that period results in significant variations in emissions from year to year. EPA expects year-to-year differences in plant operations, and indeed EPA seeks to include that variability in its recommended approach to assessing the appropriate degree of adjustment of longer-term limits. Indeed, EPA's analysis of post-control data described in the supplemental NPRM suggests that the multi-year variability of current emissions is similar to the multi-year variability of Unit 2 FGD stack emissions in 2006 to 2010.

"Stable operation" cannot be defined as operation without year-to-year variations; such a definition would defeat the purpose of forecasting the variability in emissions that can be expected into the future once the SIP control strategy is implemented.

If anything, Sierra Club's comment highlights the importance of using the entirety of a multi-year data base (EPA recommends at least three to five years) for determining the relative

stringency of a long term average limit as compared to a 1-hour limit, for a period with a stable control regime such as was the case here.

Comment: Sierra Club objects that Indiana did not evaluate whether limits with an intermediate averaging period (e.g. 24 hours) might be more appropriate or whether supplemental limitations on peak hourly emissions might be warranted. Sierra Club provided statistics for each of the four units on the number of days since the limits took effect (using data from January 1, 2017 to June 30, 2018) during which at least one hour exceeded the critical emission rate, despite the four units all complying with Indiana's 30-day average emission limits. For Units 1 through 4 during that one and one half year period, Sierra Club noted 63 days, 138 days, 9 days, and 22 days, respectively, with at least one hour having more emissions than the unit's critical emissions value, representing respectively 11.5 percent, 25.3 percent, 1.7 percent, and 4.0 percent of the days in that period. Sierra Club further notes eight hours during which total SO₂ emissions exceeded the sum of the four units' critical emissions values (in approximate terms, a plant-wide critical emissions value). Sierra Club concludes that Indiana's 30-day average limits cannot be considered comparably stringent to 1-hour limits at the critical emissions value, that modeling of the critical emissions value does not suffice to

demonstrate that the 30-day average limits provide for attainment, and that supplemental limits must be imposed to assure that "actual occurrences of hourly emission rates above the critical emissions values will only occur on 'rare' occasions."

Response: EPA's initial NPRM concluded that Indiana's 30-day average limits appeared to be sufficiently stringent to constrain hourly emissions to be only rarely above the critical emissions values, without the need for supplemental limits. The same logic would suggest that the use of limits with an intermediate averaging time such as 24 hours is also not necessary to assure that hours with emissions above the critical emissions value will be rare.

EPA's initial NPRM reported the results of an examination of five years of data from Unit 2 from before Indiana's limits took effect, noting that the unit exceeded the 30-day average limit for about seven percent of the averages and that the unit exceeded the critical emissions value for about six percent of the hours. Sierra Club uses a data set for 18 months starting when Indiana's limits took effect, which is a data set that is more indicative of operation in accordance with the limits in Indiana's plan. Sierra Club also examined data for all four units. Finally, EPA's supplemental NPRM, on which Sierra Club did not comment, reviewed the data for a 30-month period

starting when Indiana's limits took effect. Specifically, for this 30-month period, Units 1, 3, and 4 complied with their revised 30-day average limits and had hourly emissions above the critical emissions value (*i.e.* the modeled mass emissions in pounds per hour) for 0.9 percent, 0.1 percent, and 0.4 percent of the hours, respectively. Unit 2 exceeded its revised limit 17 percent of the 30-day averages, while exceeding the critical emission value 3 percent of the time. This suggests that the necessary improvements in scrubber efficiency at Unit 2 would likely yield a percentage of hours with emissions above the critical emission value that is similar to the percentages found for the three units that are already complying with limits. In absence of comments on this information, EPA continues to believe that Indiana's 30-day average limits are sufficient to constrain emissions to be only rarely above the critical emissions value, even without supplemental limits or limits set with a shorter averaging time.

Comment: Sierra Club noted that Indiana determined its 30-day average limits on emission levels (in pounds per hour) on the basis of an adjustment factor calculated to reflect variability of emission rates (in pounds per MMBTU), to which Sierra Club objected as being inappropriate and contrary to EPA guidance.

Response: EPA agrees that the variability of emission

levels is prone to be different from the variability of emission rates, and Sierra Club is correct that EPA guidance recommends determining and applying separate adjustment factors for these two types of limits. Indiana's amended plan, including revised emission rate limits, no longer includes 30-day average mass emission level limits.⁴ EPA's supplemental NPRM provided EPA's review of this and other revisions Indiana made, and EPA received no comments on the revisions or on the review provided in its supplemental action. Thus, this comment is now moot.

III. EPA's Final Action

EPA is approving Indiana's SIP submission for the Southwest Indiana SO₂ nonattainment area, which Indiana submitted to EPA on October 2, 2015 and supplemented on June 7, 2017, November 15, 2017, and September 18, 2019, and clarified on November 19, 2019. This SO₂ nonattainment plan included Indiana's attainment demonstration for this area. The nonattainment plan also addressed requirements for emission inventories, reasonably available control technology/reasonably available control measures, reasonable further progress, and contingency measures. Indiana has previously addressed requirements regarding

⁴ Indiana has provided modeling demonstrating that attainment is assured by a limit corresponding to the "critical emission rate" (which may be defined as the pound per MMBTU rate that at maximum load suffices to provide for attainment), and so Indiana's plan provides for attainment without need for an additional limit on pounds of emissions per hour.

nonattainment area new source review.⁵ EPA has determined that Indiana's SO₂ nonattainment plan for Southwest Indiana meets the applicable requirements of Clean Air Act sections 110, 172, 191, and 192.

Underpinning Indiana's attainment plan for Southwest Indiana are three rules and a Commissioner's Order. The rule that is most pertinent to this action is Indiana Administrative Code, Title 326, Rule 7-4-15 (326 IAC 7-4-15), entitled "Pike County sulfur dioxide emission limitations", effective January 1, 2017, which provides 1-hour emission limits for IP&L-Petersburg and the Frank E. Ratts facility and provide the terms under which IP&L may switch between being subject to the 1-hour limits in the rule and the 30-day average limits in the Commissioner's order. Two other rules, namely 326 IAC 7-1.1-3 ("Compliance date") and 326 IAC 7-2-1 ("Reporting requirements; methods to determine compliance"), are also pertinent to the Marion, Morgan, and Vigo County nonattainment plans and were approved in the context of action on the Marion and Vigo County action (See 84 FR 10692, published March 22, 2019.) As a result of this action, the SIP will include Pike County limits (in addition to previously approved limits for Marion, Morgan and

⁵As noted in the NPRM, EPA approved Indiana's nonattainment new source review rules on October 7, 1994 (94 FR 24838).

Vigo Counties) as well as the implementing provisions in 326 IAC 7-1.1-3 and 326 IAC 7-2-1, and no reapproval of these implementing provisions and indeed no SIP revision is needed for these implementing provisions to govern the implementation of the Pike County limits, as Indiana intended.⁶ In accordance with Indiana's request, EPA is approving paragraphs a, b, d, and e of 326 IAC 7-4-15. EPA is also approving Commissioner's Order Number 2019-2, issued on July 31, 2019 and effective on August 18, 2019. Indiana did not request approval of 326 IAC 7-4-15(c), because these 30-day average limits have been superseded by the 30-day average limits in Commissioner's Order. As discussed in the supplemental NPRM, EPA is following Indiana's interpretation that compliance with the limits in the Commissioner's Order substitute for and supersede the limits in 326 IAC 7-4-15(c), and accordingly that the provisions of 326 IAC 7-4-15(d) describe how 30-day average emission rates are to be calculated to determine compliance with the limits in the Commissioner's Order, and that the provisions of 326 IAC 7-4-15(e) set the terms under which IP&L may elect to switch whether they must meet the 1-hour emission limits in 326 IAC 7-4-15(a) or the 30-day average limits in the Commissioner's Order.

⁶ To avoid any potential for confusion, EPA wishes to note that the compliance deadline for the limits in the commissioner's order is specified in the commissioner's order and not in 326 IAC 7-1.1-3.

IV. Incorporation by Reference

In this rule, EPA is finalizing regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, EPA is finalizing the incorporation by reference of an Indiana regulation described in the amendments to 40 CFR part 52 set forth below. EPA has made, and will continue to make, these documents generally available through www.regulations.gov, and at the EPA Region 5 Office (please contact the applicable person identified in the **"For Further Information Contact"** section of this preamble for more information). Therefore, these materials have been approved by EPA for inclusion in the SIP, have been incorporated by reference by EPA into that plan, are fully federally enforceable under sections 110 and 113 of the Clean Air Act as of the effective date of the final rulemaking of EPA's approval, and will be incorporated by reference in the next update to the SIP compilation.⁷

V. Statutory and Executive Order Reviews.

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Clean Air Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions,

⁷ 62 FR 27968 (May 22, 1997).

EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this action merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Is not an Executive Order 13771 (82 FR 9339, February 2, 2017) regulatory action because SIP approvals are exempted under Executive Order 12866;
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- Does not have federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);

- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act; and
- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act

of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a "major rule" as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the Clean Air Act, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by **[insert date 60 days after date of publication in the Federal Register]**. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2).)

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control,
Incorporation by Reference, Reporting and recordkeeping
requirements, Sulfur oxides.

AUTHORITY: 42 U.S.C. 7401 *et seq.*

Dated: July 16, 2020.

Kurt Thiede,
Regional Administrator, Region 5.

For the reasons stated in the preamble, the EPA amends 40 CFR part 52 as follows:

PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

2. In § 52.770:

a. In paragraph (c) amend the table by adding an entry for “7-4-15” under “Article 7. Sulfur Dioxide Rules,” “Rule 4. Emission Limitations and Requirements by County”;

b. In paragraph (d) amend the table by adding an entry at the end with a CO date of “7/31/2019” for “IP&L-Petersburg”; and

c. In paragraph (e) amend the table by adding an entry for “Southwest Indiana 2010 Sulfur Dioxide (SO₂) Attainment Plan” after the entry for “Ozone (8-Hour, 1997): South Bend-Elkhart, IN (Elkhart and St. Joseph Counties)”.

The additions read as follows:

§ 52.770 Identification of plan.

* * * * *

(c) * * *

EPA--APPROVED INDIANA REGULATIONS

Indiana citation	Subject	Indiana effective date	EPA approval date	Notes
*	*	*	*	*
Article 7. Sulfur Dioxide Rules				

* * * * *				
Rule 4. Emission Limitations and Requirements by County				
* * * * *				
7-4-15	Pike County sulfur dioxide emission limitations	10/5/2015	[insert date of publication in the Federal Register], [insert Federal Register citation]	Only (a), (b), (d), and (e). EPA is approving a commissioner's order in place of (c)
* * * * *				

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(d) * *

EPA--APPROVED INDIANA NONREGULATORY AND QUASI-REGULATORY PROVISIONS

CO date	Title	SIP rule	EPA approval	Explanation
* * * * *				
7/31/2019	IP&L-Petersburg	7-4-15	[insert date of publication in the Federal Register], [insert Federal Register citation]	30-day average limits

* * * *

(e) * *

EPA--APPROVED INDIANA NONREGULATORY AND QUASI-REGULATORY PROVISIONS

Title	Indiana date	EPA approval	Explanation
* * * * *			
Southwest Indiana 2010 Sulfur Dioxide (SO ₂) Attainment Plan	10/2/15	[insert date of publication in the Federal Register], [insert Federal Register citation]	
* * * * *			

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[FR Doc. 2020-16044 Filed: 8/14/2020 8:45 am; Publication Date: 8/17/2020]